

# Centers of Economic Excellence (Endowed Chairs) — a Smart Investment for South Carolina's Future



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Briefing

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*Imagine if the business world's "next big thing" — the next Microsoft or Genentech — were headquartered in South Carolina. Think of the high-paying jobs — R&D, engineering and human resources — that such a company would create here, and the effect that inflow of payroll, capital investment and tax revenue would have on our economy.*

*How do we make this happen?*

By JIM BARKER, RAY GREENBERG, AND ANDREW SORENSEN

Five years ago, the General Assembly created a program designed to attract to South Carolina the world's most talented researchers — those who are, in fact, working to create the superstar technologies of tomorrow. This visionary initiative, the Centers of Economic Excellence Program (also known as endowed chairs) leverages state and private funds along with university-based research to drive economic growth.

To date, the program has brought 12 world-class scientists or "endowed chairs" to our state's universities. It has also established 30 Research Centers of Economic Excellence in areas such as nanotechnology, health sciences, future fuels, energy alternatives, automotive engineering and advanced fibers. These centers house research in targeted industries with the greatest promise to create high-skill, high-paying jobs. State funds for the program come from S.C. lottery proceeds and must be matched dollar-for-dollar with non-state monies from corporations, foundations or private donors. This model has created a magnet for private-sector investment in South Carolina.

The state's three research universities, Clemson University, the University of South Carolina and the Medical University of South Carolina, are using the program to benefit our state. In addition to increased research collaboration among the three institutions, we are now able to get the attention of the world's best scientists and graduate students.

As an example, BMW, Michelin, Timken and other South Carolina companies recognize the value of the research now happening in the state. They've tapped into those capabilities and have stepped up to fund endowed chairs. World-class scientists recruited under the program are generating technology that these

and other companies can commercialize to create new products, improve processes, increase sales and ultimately create jobs.

The Centers of Economic Excellence Program is helping us attract new companies to South Carolina — which could produce an immediate payoff for the state in jobs and investment — based on the value of research and innovation happening here. What's more, the program is also beginning to create spinoff companies from university research in high-growth, high-wage industries.

South Carolina's students also benefit from the program. Increasing the level of training we can provide lets us keep our best and brightest at home, helping to end our exporting of talent. In addition, the presence of top researchers via the endowed chairs program helps attract top-flight students from other states. Statistics show that many of these bright minds will remain in South Carolina following graduation. Together, these in-state and out-of-state students can become our next generation of innovators.

South Carolina's political leadership should be commended for creating and supporting the Centers of Economic Excellence Program during the past five years. Continuing to fully fund this effort must be a high priority. Changing course would be devastating, costing us precious momentum in our battle to gain ground toward greater success in the knowledge economy.

We encourage our state's leaders not to look at funding the endowed chairs program as an appropriation, but rather as an investment — a smart investment that will fuel innovation, enhance economic opportunity and lead to a stronger South Carolina.

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Find out about the *Prominent Neurologist Arriving at MUSC*





## Prominent Neurologist Arrives at MUSC

*Pappolla to continue research into anti-aging treatments, will hold endowed professorship as part of the*  
**S.C. Centers of Economic Excellence Program**

A leading physician and scientist who has spent several decades researching brain aging and Alzheimer's disease has joined the faculty of the Medical University of South Carolina as part of a state-sponsored program geared to boost the state's output of applied research.

Miguel A. Pappolla, M.D., Ph.D. has accepted the Josephine Tucker Morse S.C. Research Centers of Economic Excellence Chair in Neuropathology at MUSC. He has also assumed a tenure track position as professor of neurology in the MUSC's department of neurosciences.

Pappolla's research has netted him two patents for neuro-protective compounds, and two more patents are pending. His compounds are similar to melatonin, an antioxidant that may be able to protect humans against the damaging effects of aging and diseases such as cancer, Alzheimer's disease and cardiovascular disease.

Pappolla believes his compounds will have commercial applications in medical treatments and nutritional supplements. His discoveries may even have potential as an anti-aging ingredient in cosmetic creams and makeup.

"I'm excited to be here at MUSC and I'm very hopeful about the future," Pappolla said. "It's an exciting time for this area of research. There is a lot of demand for treatments that can slow the aging process, so the economic incentive to advance this research is there. My goal is to tap into this demand and get the products of my research into the market where they can improve people's lives by making them look and feel their best."

"Pappolla's work has tremendous commercialization potential, which means a tremendous opportunity for South Carolina's citizens to benefit from additional jobs

and a stronger state biotechnology cluster," said MUSC President Ray Greenberg.

Pappolla recently completed a sabbatical/fellowship at the University of Mississippi at Jackson, where he focused on pain management. He also served as clinical professor of neurology and neurosciences at Louisiana State University Health Sciences Center in New Orleans and maintained a private practice at the McGowin Center for Neuroscience in Gulfport, Mississippi.

Pappolla is board certified in anatomic pathology, clinical pathology, neuropathology and neurology. He is widely published in clinical and translational neurology and neuropathology, and has extensive administrative and clinical practice experience. He has held multiple grants from the National Institutes of Health, foundations and corporations, as well as from the Department of Veterans Affairs. He has published 75 peer-reviewed manuscripts, 12 invited reviews and book chapters and nearly 70 abstracts.

*"The Centers of Economic Excellence program is a critical tool in our efforts to build South Carolina's life sciences sector. MUSC now boasts seven highly respected CoEE professors working to develop new health technologies to improve patient care. Without the program, it would have been extremely difficult to recruit these talented individuals."*

*-Ray Greenberg  
President, MUSC*

